

L Number	Hits	Search Text	DB	Time stamp
3	535	(700/17).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15:13
4	266	(700/18).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15:14
5	450	(700/2).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15:14
6	29036	mask\$2 near5 (data or value)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15:17
9	16	((700/2).CCLS.) and (mask\$2 near5 (data or value))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15:15
7	16	((700/17).CCLS.) and (mask\$2 near5 (data or value))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15:15
8	13	((700/18).CCLS.) and (mask\$2 near5 (data or value))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15:16
10	2995	mask\$2 near5 (data or value) and cach\$3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15:17
11	4	((700/17).CCLS.) and (mask\$2 near5 (data or value) and cach\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15:17
12	1	((700/18).CCLS.) and (mask\$2 near5 (data or value) and cach\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15:18
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-	52	((I/O adj processor) with cach\$3) and @ad<=20010725	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 14:08
-	6	(I/O adj processor) and (force near5 mask)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 14:05

	29	(I/O adj processor) and (forced near5 data)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 14:07
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	8	(I/O adj forc\$3) and cach\$3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 14:28
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	870	(711/147).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 14: 55
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	861	(710/5).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 14: 56
	180	(710/23).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 14: 56
	326	(710/48).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 14: 56
	85	(710/49).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 14: 56
	225	(710/262).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 14: 56
	136	(712/224).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 14: 57
	0	("19and24").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 14: 57

	57	((mask\$2 near5 (data or value))) and ((711/118).CCLS.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 14: 57
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	0	(I/O adj processor) and (((mask\$2 near5 (data or value))) and ((710/49).CCLS.))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15: 00

	0	(I/O adj processor) and (((mask\$2 near5 (data or value))) and ((712/224).CCLS.))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15: 00
	1	(I/O adj processor) and (((mask\$2 near5 (data or value))) and ((711/113).CCLS.))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15: 00
	4	(I/O adj processor) and (((mask\$2 near5 (data or value))) and ((710/1).CCLS.))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15: 00
	3	(I/O adj processor) and (((mask\$2 near5 (data or value))) and ((710/5).CCLS.))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15: 01
	1	(I/O adj processor) and (((mask\$2 near5 (data or value))) and ((710/23).CCLS.))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15: 01
	1	(I/O adj processor) and (((mask\$2 near5 (data or value))) and ((710/48).CCLS.))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15: 02
	1	(I/O adj processor) and (((mask\$2 near5 (data or value))) and ((710/262).CCLS.))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/11/09 15: 02

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1 Fault-containment in cache memories for TMR redundant processor systems

Chung-Ho Chen; Somani, A.K.;
Computers, IEEE Transactions on, Volume: 48, Issue: 4, April 1999
Pages:386 - 397

[\[Abstract\]](#) [\[PDF Full-Text \(412 KB\)\]](#) IEEE JNL

2 An efficient wavelet-based compression method for volume rendering

Kim, T.; Shin, Y.;
Computer Graphics and Applications, 1999. Proceedings. Seventh Pacific Conference on, 5-7 Oct. 1999
Pages:147 - 156

[\[Abstract\]](#) [\[PDF Full-Text \(924 KB\)\]](#) IEEE CNF

3 Improved adaptive replacement algorithm for disk caches in HSM systems

Hahn, U.; Dilling, W.; Kaletta, D.;
Mass Storage Systems, 1999. 16th IEEE Symposium on, 15-18 March 1999
Pages:128 - 140

[\[Abstract\]](#) [\[PDF Full-Text \(824 KB\)\]](#) IEEE CNF

4 Memory hierarchy management for iterative graph structures

Al-Furaih, I.; Ranka, S.;
Parallel Processing Symposium, 1998. 1998 IPPS/SPDP. Proceedings of the First Merged International...and Symposium on Parallel and Distributed Processing 1998, 30 March-3 April 1998
Pages:298 - 302



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Relevance scale

1 Monte Carlo techniques in code optimization 
 Dean Jacobs, Jan Prins, Peter Siegel, Kenneth Wilson
 October 1982 **Proceedings of the 15th annual workshop on Microprogramming**
 Full text available: [pdf\(545.73 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Effective optimization of FPS Array Processor assembly language (APAL) is difficult. Instructions must be rearranged and consolidated to minimize periods during which the functional units remain idle or perform unnecessary tasks. Register conflicts and branches cause complications. Deterministic algorithms to arrange instructions traditionally use complex heuristics which are tailored to specific inputs. A non-deterministic approach can be simpler and effective on a large class of inputs. T ...

2 Performance evaluation of the Orca shared-object system 
 Henri E. Bal, Raoul Bhoedjang, Rutger Hofman, Ceriel Jacobs, Koen Langendoen, Tim Rühl, M. Frans Kaashoek
 February 1998 **ACM Transactions on Computer Systems (TOCS)**, Volume 16 Issue 1
 Full text available: [pdf\(179.39 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

Orca is a portable, object-based distributed shared memory (DSM) system. This article studies and evaluates the design choices made in the Orca system and compares Orca with other DSMs. The article gives a quantitative analysis of Orca's coherence protocol (based on write-updates with function shipping), the totally ordered group communication protocol, the strategy for object placement, and the all-software, user-space architecture. Performance measurements for 10 parallel applications ill ...

Keywords: distributed shared memory, parallel processing, portability

3 WaveScalar 
 Steven Swanson, Ken Michelson, Andrew Schwerin, Mark Oskin
 December 2003 **Proceedings of the 36th Annual IEEE/ACM International Symposium on Microarchitecture**
 Full text available: [pdf\(228.98 KB\)](#) [Publisher Site](#) Additional Information: [full citation](#), [abstract](#), [citations](#), [index terms](#)

Silicon technology will continue to provide an exponential increase in the availability of raw transistors. Effectively translating this resource into application performance, however, is an open challenge. Ever increasing wire-delay relative to switching speed and the exponential cost of circuit complexity make simply scaling up existing processor designs futile. In this paper, we present an alternative to superscalar design, WaveScalar. WaveScalar is a dataflow instruction set architecture and executi ...

4 [Revised report on the algorithmic language scheme](#)

J Rees, W Clinger

December 1986 **ACM SIGPLAN Notices**, Volume 21 Issue 12

Full text available:  [pdf\(4.06 MB\)](#)

Additional Information: [full citation](#), [citations](#), [index terms](#)



5 [ProtoMol, an object-oriented framework for prototyping novel algorithms for molecular dynamics](#)

Thierry Matthey, Trevor Cickovski, Scott Hampton, Alice Ko, Qun Ma, Matthew Nyerges, Troy Raeder, Thomas Slabach, Jesús A. Izaguirre

September 2004 **ACM Transactions on Mathematical Software (TOMS)**, Volume 30 Issue 3

Full text available:  [pdf\(907.26 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)



ProtoMol is a high-performance framework in C++ for rapid prototyping of novel algorithms for molecular dynamics and related applications. Its flexibility is achieved primarily through the use of inheritance and design patterns (object-oriented programming). Performance is obtained by using templates that enable generation of efficient code for sections critical to performance (generic programming). The framework encapsulates important optimizations that can be used by developers, such as parallel ...

Keywords: Fast electrostatic methods, incremental parallelism, molecular dynamics, multigrid, multiple time-stepping integration, object-oriented framework.

6 [Kernel Korner: Dynamic Kernels - Modularized Device Drivers](#)

March 1996 **Linux Journal**

Full text available:  [html\(29.61 KB\)](#)

Additional Information: [full citation](#), [index terms](#)



7 [Haptic sculpting of dynamic surfaces](#)

Frank Dachille, Hong Qin, Arie Kaufman, Jihad El-Sana

April 1999 **Proceedings of the 1999 symposium on Interactive 3D graphics**

Full text available:  [pdf\(1.15 MB\)](#)

Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)



8 [A placement algorithm for array processors](#)

Dah-Juh Chyan, Melvin A. Breuer

June 1983 **Proceedings of the 20th conference on Design automation**

Full text available:  [pdf\(648.80 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)



In this report a concurrent pairwise exchange placement algorithm executing on an array processor is presented. Two force functions and their effects are discussed. The oscillation phenomenon caused by the concurrent computation is investigated and some solutions are suggested. A design for the array processor is presented along with a complexity analysis which indicates that this algorithm is $O(N^2)$ faster than a conventional sequential placement

algorithm if N < ...

Keywords: Array-processor, Oscillation, Pairwise exchange, Placement, VLSI

9 Abstract routing of logic networks for custom module generation 

S. T. Healey, W. J. Kubitz

October 1987 **Proceedings of the 24th ACM/IEEE conference on Design automation**

Full text available:  pdf(845.98 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

This paper describes a switchbox-type router for custom VLSI module generation as performed by a module planner. A module is decomposed into abstract cells consisting of global routes and Boolean functional specifications. Each abstract cell is given to a cell synthesizer which generates the circuit layout and through-the-cell routing. Abstract routing for a module planner is in some sense similar to switchbox routing to the degree that all of the routes are generated inter ...

10 System-Level Synthesis of Application Specific Systems using A* Search and Generalized Force-Directed Heuristics 

Chunho Lee, Miodrag Potkonjak, Wayne Wolf

November 1996 **Proceedings of the 9th International Symposium on System Synthesis**

Full text available:  pdf(822.59 KB)

Additional Information: [full citation](#), [abstract](#)

 Publisher Site

This paper presents a system-level approach to the synthesis of multi-task, hard real-time applications. The goal is to select a set of off-the-shelf processors with minimal cost while satisfying timing constraints. Our approach has three design phases: resource allocation, assignment, and scheduling. With the observation that the resource allocation is a search for a set of processors which requires the minimum cost, we adopted A* search based technique. For assignment we use a variation of the ...

Keywords: Hard Real-Time, System-Level Synthesis, Search Techniques

11 A technique for QoS-based system partitioning 

Johnson S. Kin, Chunho Lee, William H. Mangione-Smith, Miodrag Potkonjak

January 2000 **Proceedings of the 2000 conference on Asia South Pacific design automation**

Full text available:  pdf(92.35 KB)

Additional Information: [full citation](#), [references](#)

12 Revised5 report on the algorithmic language scheme 

N. I. Adams, D. H. Bartley, G. Brooks, R. K. Dybvig, D. P. Friedman, R. Halstead, C. Hanson, C. T. Haynes, E. Kohlbecker, D. Oxley, K. M. Pitman, G. J. Rozas, G. L. Steele, G. J. Sussman, M. Wand, H. Abelson

September 1998 **ACM SIGPLAN Notices**, Volume 33 Issue 9

Full text available:  pdf(4.44 MB)

Additional Information: [full citation](#), [citations](#), [index terms](#)

13 Compiler technology for parallel machines: Language support for data parallelism in pointer based dynamic data structures 

Pankaj Kumar

October 1993 **Proceedings of the 1993 conference of the Centre for Advanced Studies on Collaborative research: distributed computing - Volume 2**

Full text available:  [pdf\(634.64 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#)

To date, most of the work on language support for data parallelism has been largely limited to static data structures such as arrays. In 'C' or C++, the use of pointers and dynamic memory allocators provide the ability to handle more complex data structures whose size and shape may vary over the course of the computation. There are two main issues with regards to supporting data parallelism on pointerbased dynamic data structures without having the programmer worry about synchronization, ...

14 Fault diagnosis based on effect-cause analysis: An introduction 

Miron Abramovici, Melvin A. Breuer

June 1980 **Proceedings of the 17th conference on Design automation**

Full text available:  [pdf\(691.37 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

This paper presents the basic concepts of a new fault diagnosis technique which has the following features: 1) is applicable to both single and multiple faults, 2) does not require fault enumeration, 3) can identify faults which prevent initialization, 4) can indicate the presence of nonstuck faults in the D.U.T., 5) can identify fault-free lines in the D.U.T. Our technique, referred to as effect-cause analysis, does not require a fault dictionary and it is not based on com ...

15 Borel sets and circuit complexity 

Michael Sipser

December 1983 **Proceedings of the fifteenth annual ACM symposium on Theory of computing**

Full text available:  [pdf\(534.71 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

It is shown that for every k , polynomial-size, depth- k Boolean circuits are more powerful than polynomial-size, depth- $(k-1)$ Boolean circuits. Connections with a problem about Borel sets and other questions are discussed.

16 Efficient visualization of physical and structural properties in crash-worthiness simulations (case study) 

Sven Kuschfeldt, Thomas Ertl, Michael Holzner

October 1997 **Proceedings of the 8th conference on Visualization '97**

Full text available:  [pdf\(592.85 KB\)](#) Additional Information: [full citation](#), [references](#), [index terms](#)
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17 DAB: interactive haptic painting with 3D virtual brushes 

Bill Baxter, Vincent Scheib, Ming C. Lin, Dinesh Manocha

August 2001 **Proceedings of the 28th annual conference on Computer graphics and interactive techniques**

Full text available:  [pdf\(10.82 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We present a novel painting system with an intuitive haptic interface, which serves as an expressive vehicle for interactively creating painterly works. We introduce a deformable, 3D brush model, which gives the user natural control of complex brush strokes. The force feedback enhances the sense of realism and provides tactile cues that enable the user to better manipulate the paint brush. We have also developed a bidirectional, two-layer paint model that, combined with a palette interface ...

Keywords: Human Computer Interaction, deformable brush model, haptics, painting systems

18 A test synthesis approach to reducing BALLAST DFT overhead

Douglas Chang, Mike Tien-Chien Lee, Małgorzata Marek-Sadowska, Takashi Aikyo, Kwang-Ting Cheng

June 1997 **Proceedings of the 34th annual conference on Design automation - Volume 00**

Full text available:  [pdf\(168.52 KB\)](#)

 Publisher Site

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

In this paper, we present a test synthesis approach which integrates BALLAST (BALanced structure Scan Test) with an enhanced test point insertion (TPI) algorithm to functionally scan the flip-flops chosen by BALLAST. BALLAST is an attractive partial scan technique in that it offers combinational ATPG efficiency while promising to reduce full scan overhead. However, the practical problem with BALLAST is that it typically requires more scan flip-flops than other partial scan techniques. The TPI enhancements enable ...

19 The combination of scheduling, allocation, and mapping in a single algorithm

Richard J. Cloutier, Donald E. Thomas

January 1991 **Proceedings of the 27th ACM/IEEE conference on Design automation**

Full text available:  [pdf\(792.19 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We present a single high level synthesis algorithm that schedules the operations of a data dependence graph, allocates the necessary hardware, and maps the operations to specific functional units. This is achieved by extending the global analysis approach developed for force-directed scheduling to include individual module instances. This new algorithm should be applicable to any behavioral synthesis system that schedules operations from a data dependence graph.

20 Interaction and VR: A model for efficient and accurate interaction with elastic objects in haptic virtual environments

Dan C. Popescu, Michael Compton

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This paper describes a method of modelling real-time interactions with elastic 3D objects represented by finite element models, which is particularly suitable for haptic virtual environments. The assumption we make is that the area of interaction of the external forces on the object is small. Our method provides a physically based solution and only requires the precomputation of the inverse of the stiffness matrix. It can be naturally coupled with a technique of local multiresolution collision d ...

Keywords: deformable objects, finite element method, haptics, linear elasticity, virtual reality